Amendments to the Specification:

Please replace paragraph [0002] with the following amended paragraph:

[0002] The present invention generally relates to [the] electrical interconnection devices, and more particularly to electrical contacts that are at the interface between a first electronic device and a substrate or between an electrical connector and the same.

Please replace paragraph [0009] with the following amended paragraph:

[0009] The present invention provides an electrical contact formed from a precursor material, such as an etched or stamped metal sheet, or a plurality of interlaced metal wires. The precursor materials may be formed into a tube or other appropriate shape, and annealed to set their structural form. The annealed structure may then be cut into short segments to form a plurality of individual electrical contacts. The precursor materials are often formed by photo-etching a sheet of conductive material into a mesh with openings of predetermined size and shape. The mesh may also be made by stamping with a conventional metal working die. Alternatively, the precursor material may be made by manipulating a plurality of wires so as to interlace the wires into a unitary structure in the form of a mesh. The desired form <u>factor</u> ~~factored~~ of the electrical contact can be made by first rolling a portion of the precursor material <u>into</u> [in to] a tube and followed by annealing under a constraint to set the form factor permanently. The tubular structure is then cut into short segments to form individual electrical

contacts. The preferred structural forms include folded structures of one or more pleats formed from the precursor material. Such a structure can be made by pressing a unitary mesh structure in a die adapted to form pleated or folded structure in the mesh, followed by annealing the pleated or folded mesh while resident in the die to set permanently the structural form. It is then cut to form individual electrical contacts.

Please replace paragraph [0033] with the following amended paragraph:

[0033] In one woven embodiment, eight stainless steel wires 8 are woven together to form a tubular electrical contact 2. In this arrangement, each wire 8 takes a helical path so as to be interlaced with each adjacent wire 8, while at the same time, each wire 8 only undergoes a substantially elastic deformation, i.e., each wire 8 would exhibit bending properties wholly consistent with the elastic limit portion of its underlying material's characteristic "*stress-strain*" or "*force-deflection*" curve. Substantially no plastic deformation is caused to occur in wires 8 during this manufacturing step. Also, it should be understood that at the points of intersection/overlap 9 of wires 8 in mesh 12, no bonding or other mechanical interconnection exists between the adjacent portions of wires 8. As a result of this structural arrangement, the adjacent portions of each wire 8 that define each of the intersection/overlap points 9 are movable relative to one another. It has been found to be effective, in braided or interlaced structures, that mechanical stability may be achieved when the ratio of the diameter of the contact and the

lay length is smaller than about one-half, when cut into short segments even after annealing, where the lay length is the length per wire turn. Thus electrical ~~electrically~~ contacts having a diameter greater than 10 mils may be manufactured with adequate results.

Please replace paragraphs [0035], [0036] and [0037] with the following amended paragraphs:

[0035] Typically, a conventional electrical contact structure is formed by deforming the metal into the plastic range to permanent set the desired form. Often it is not possible to reach the desired form in one forming step. Instead ~~instead~~ the deformation is carried out in sequential steps until ~~till~~ the final form is obtained. Bending a wire may work harden it, which introduces defects, known as dislocations, into the structure. These defects interfere with further deformation and make the metal hard and strong so it is not easily re-bent, and also cause the metal to take a set once bent. The annealing process is significant in this invention as a means to produce electrical contact comprising spring structures having relatively small dimensions. The structure of the present invention is often of such a small dimension that it is difficult to use conventional bending and forming processes. If a tubular structure were to be formed by plastic deformation, the cross-section of the individual wires will also be severely deformed at the same time which is not desirable for mechanical performance.

[0036] In the present invention, the forming of the structure involves only essentially elastic deformation in rolling, braiding, and other processes. Under elastic deformation the formed structure cannot be maintained without a supporting constraint, otherwise ~~constraint. Otherwise~~ the structure will fall apart as a result of elastic rebound. Advantageously, electrical contacts of the present invention may be formed by constraining them in a precursor form, then annealing them at a sufficiently high temperature together with the stored elastic stress, dislocations will be generated and moved to permanently set the shape of the electrical contact thus relaxing the stored elastic strain. The extent of deformation in the elastic range is limited so that the shape of the wire cross-section, for example, will not be altered and it will be easier to design the die or other means of constraint. A folded or pleated structure may be formed by annealing the structure, while still elastically deformed in a properly designed die or other fixture which serves as the constraint. For a rolled electrical contact structure, a properly designed constraint to maintain the tubular form is necessary during annealing. In one embodiment, mesh 12 is wrapped upon itself so as to form a plurality of overlapping layers providing a substantially helical structure to the tube (Fig. 11). In the case of a braided tubular structure, before cutting, the structure itself acts as a constraint during annealing.

[0037] The annealing of mesh 12 relieves the elastic strain that is inherent in wires 8 as a result of the weaving process, particularly at intersection/overlap points 9 where wires 8 are elastically deformed so as to bend or curve. Absent

this annealing step and structure, wires 8 and mesh 12 would simply spring apart in the absence of any additional internal or external support structure affixed to mesh 12, e.g., a polymeric or elastomeric support core or shell. The combination of weaving individual wires 8 into a structure having inherent macro-elastic properties, with an annealing step to set the individual wires 8 in their woven structural arrangement, provides for significantly enlarged force deflection properties. Thus when woven into mesh 12 according to the invention, and then annealed, plurality of wires 8 provide a[an] resilient electrical contact structure having a significantly increased elastic range. To maintain a good surface condition heat treatment should be carried out in a controlled atmosphere furnace at the appropriate temperature for the particular grade of stainless steel or, in a less preferred embodiment, alloy of copper which may also be oil quenched to achieve maximum hardness.

Please replace paragraphs [0042] and [0043] with the following amended paragraphs:

[0042] Referring to Figs. 4, 5, and 6 an IC package **A** may be electrically connected to trace circuits on PCB **D** using an LGA assembly comprising electrical contacts 2 in accordance with the present invention. Each electrical contact 2 is positioned within a passageway formed in housing **E** such that a first end 31 of each electrical contact 2 is positioned above a surface of housing **E**, and a second end 33 is positioned below a surface of housing **E** (Fig. 5).

Alternatively, a housing having a plurality of blind openings 35 arranged in an array that corresponds with the array of contact pads[pad] **B** on IC package **A** such that an inner connection can be made between IC package **A** and circuit traces located on or in PCB **D**.

[0043] In one alternative embodiment of the invention, wires 8 may be woven into an initially flat mesh 40 (comprising warp and weft wires) which then may be formed so as to create a variety of contact structures. For example, mesh 40 may be rolled upon itself so as to form a rolled contact 42 (Figs. 11 and 12). Mesh 40 is wrapped upon itself so as to form a plurality of overlapping layers providing a substantially helical structure to rolled contact 42 (Fig. 11). Each rolled contact 42 may then be cut from mesh 40 and assembled within a suitable housing as disclosed hereinabove. Alternatively, mesh 40 may be folded so as to create a plurality of pleats 45 defined by a plurality of troughs 47 and ridges 49. A contact edge 50 is defined along the perimeter of pleats 45. Pleated electrical contacts 45 may then be cut from mesh 40 and positioned within a plurality of passageways or openings 35 within housing **E** such that contact edge 50 is positioned in spaced confronting relation to contact pads **B** (Fig. 14). In this way, pleats 45 act to support the contact within openings 35. In operation, as IC package **A** is moved toward housing **E**, contact pads **B** engage contact edge 50 of pleated electrical contact 45 thereby deforming pleated electrical contact 45 to produce a resultant contact force. Here again, annealing pleated contact 45 or rolled contact 42 allows for a set to be created in wires 8. In the case of pleated

electrical contacts 50,[.] a[A] suitable forming tool, having a pleated punch and die set, may be closed on mesh 40 during the annealing process in order to maintain the structural arrangement in elastically formed wires 8.